REMARKS

Upon entry of this amendment, claims 1-39, and 41-67 constitute the pending claims in the present application. Among them, claims 1-16, 18-20, and 66 are directed to non-elected inventions and are withdrawn from further consideration. Applicants will cancel these claims upon indication of allowable subject matter. Claim 40 is canceled without prejudice. Applicants preserve the right to prosecute claims of similar or identical scopes in future applications. Claims 17, 21-39, 41-65, and new claim 67 are directed to the elected Group VI invention, and are currently under consideration.

Applicants note that the IDS filed on November 11, 2002, and the Supplemental IDS filed on February 2, 2003 have both been considered by the Examiner.

Applicants also note that a claim for domestic priority under 35 USC 119(e) is acknowledged.

Applicants respectfully request reconsideration in view of the following remarks. Issues raised by the Examiner will be addressed below in the order they appear in the Office Action.

Claim rejections under 35 U.S.C. 112, second paragraph

Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, the Office Action asserts that the term "general formula" is indefinite and suggests change to "formula." Applicants submit that the meaning of the terms "formula" and "general formula" is rather interchangeable at least in this instance, and thus the term "general formula" would not cause any doubt in the mind of a skilled artisan. Nevertheless, to expedite prosecution, Applicants have removed "general" to adopted the Examiner's suggestion. Applicants submit that there is no narrowing of scope due to this amendment.

The Office Action also suggests that the –(CH)- unit might be a methylene unit –(CH_2)-. Applicants confirm that this is indeed a typographical error. Applicants have amended the claim

to correct this error. Applicants submit that there is no narrowing of scope due to this amendment.

The Office Action further asserts that the phrases "chelate ligand," "fluorescence tag," and "cytotoxic moiety" are indefinite because it is allegedly unclear which specific organic groups or moiety would satisfy the intended limitations. The Examiner has suggested incorporating said moieties into the claims.

Applicants submit that these terms, when interpreted according to their broadest plain meanings as known by a skilled artisan in view of the specification, would cause no doubts in the mind of a skilled artisan as to whether a specific organic group or moiety would satisfy the intended limitation. For example, page 8, the second to the last paragraph has been amended to correct an obvious typographical / grammatical error. No new matter has been introduced due to this amendment. The amended paragraph reads: "[i]n another preferred embodiment, R is a chelate moiety for chelating a metal. For example, R can be a chelator for a radiometal or a paramagnetic ion. Specifically, R can be a chelator for a radionuclide useful for radiotherapy or imaging procedures. In a preferred embodiment, R is chelator for a beta- or alpha-emitter for radio-therapeutic use. In another preferred embodiment, R can be chelator for a gamma-emitter, positron-emitter, Auger electron-emitter, X-ray emitter or fluorescence-emitter. In a most preferred embodiment, R is ^{99m}Tc (technium)." The plain meaning of the verb "chelate" in chemistry simply means "to combine with (a metal) so as to form a chelate ring" (see Merriam-Webster Dictionary). Thus, it is clear that the chelator group is one that can chelate ("bind") a moiety such as a metal ion, including those useful for radio-therapeutic use, to form a chelate ring. Page 28 further provides an illustrative list of chelators that can be used in the instant claimed invention, including EDTA, etc., as well as how to make these chelators.

Similarly, fluoresce tag is any suitable moiety that is fluorescent. The art is replete with such tags, such as FITC, rhodamine, Cy3, Cy5, etc., a skilled artisan would readily understand the meaning of such tags. As to the cytotoxic moiety, "cytotoxic" simply means "toxic to cells." The specification describes on page 30 several categories of cytotoxic agents such as toxin or chemotherapeutic agents.

On the other hand, if Applicants are forced to list each and every single organic groups or moiety that would fall within the scope of these classes of moieties, if possible at all, the

specification would become bulky, distracting and difficult to understand, thus violating the requirement of 37 CFR 1.71 for a specification that is "full, clear, and concise."

Applicants have recited different types of moieties into the new dependent claim 67 to further define the subject matter claimed. Support for this amendment can be found, for example, from page 27 to page 32. Applicants respectfully request reconsideration and withdrawal of the rejection.

Claim rejections under 35 USC §102

The Office Action states that claim 17 is rejected under 35 USC 102(b) as being anticipated by Valiaeva, Tokutake, and Katoh.

Specifically, the Office Action states that Valiaeva discloses a series of pseudopeptide analog and derivative compounds of formula I on page 5148 and 5151.

Applicants submit that Valiaeva is not a prior art, since Valiaeva was received for publication by Journal of Organic Chemistry on March 14, 2001, and was published on July 27, 2001 (see PubMed print-out, **Exhibit A**). The instant application was based on U.S. Provisional Application 60/ 267,055, filed on February 7, 2001, a copy of which is attached as **Exhibit B**. Applicants also assume that the Examiner can access the originally filed above-referenced provisional application, but Applicants can provide a certified copy of the priority document upon request..

Based on the disclosure of the provisional application, Applicants submit that claim 17 (directed to the elected invention) and its dependent claims are properly supported by the priority document (see, for example, pages 11-12 for the support to claim 17), thus Valiaeva is not prior art to the claimed invention. In addition, the effective date of the Valiaeva reference is no earlier than its publication date of July 27, 2001, which would not qualify it as a prior art under 35 U.S.C. 102(b) under any circumstance.

Thus, based on the above facts, Valiaeva is not prior art under 35 U.S.C. 102. Reconsideration and withdrawal of the rejection is respectfully requested.

Furthermore, the claimed invention is also not obvious in view of Valiaeva, since, as argued above, Valiaeva is not prior art, and thus cannot be relied upon for an obviousness rejection.

The Office Action asserts that Tokutake discloses several transition state analog inhibitors of *E. coli* gamma Glutamylcysteine Synthetase. Inhibitors such as compounds 1 and 2 disclosed on page 1936 anticipates the claimed invention.

Applicants submit that Compound 1 on page 1936 of Tokutake cannot correspond to the claimed invention no matter how the R_2, R_3, and R_4 groups are defined. For example, the part of Compound 1 to the right hand side of the phosphate group requires R_3 to be Hydrogen, which is not within the scope of claim 17. The right hand side is more different since claim 17 cannot accommodate a peptide bond (-CONH-) which is present in Compound 1. Similarly, in Compound 2, the nitrogen is in the form of some sort of ammonium salt ($-NH_3^+$), whereas the claim 17 genus requires that same nitrogen to be bound to R, which is a chelate ligand, fluorescence tag, and cytotoxic moiety.

In addition, both Compound 1 and Compound 2 do not have an R group, let alone teaching or suggesting that the R group has to be "a chelate ligand, a fluorescence tag, or a cytotoxic moiety," as required by claim 17. This is because the compounds disclosed in Tokutake base their inhibitory effects of the phosphinic acid-derived transitional state, rather than any other R group attached to the amino group. Thus, reconsideration and withdrawal of the rejection is respectfully requested.

The Office Action also asserts that Katoh discloses analog inhibitors of *E. coli* gamma Glutamylcysteine Synthetase. Inhibitors, such as Compound 1 on page 1437 and Compound 8 on page 1438 anticipates the claimed invention.

Applicants submit that Compound 1 on page 1437 of Katoh is the same as Compound 1 on page 1936 of Tokutake, thus cannot anticipate the claimed invention for the reasons stated above. Compounds 8 on page 1438 is a synthesis intermediate of Compound 1 on page 1437, and the mere presence of a few protection groups does not correct any of the defects mentioned above. In addition, N of Compound 8 is bound to H and Z, where Z is not a chelate ligand, fluorescence tag, and cytotoxic moiety. Thus, neither of these two compounds anticipate the claimed invention. Reconsideration and withdrawal of the rejection is respectfully requested.

CONCLUSION

For the foregoing reasons, Applicants respectfully request reconsideration and withdrawal of the pending rejections. Applicants believe that the claims are now in condition for allowance and early notification to this effect is earnestly solicited. Any questions arising from this submission may be directed to the undersigned at (617) 951-7000.

If there are any other fees due in connection with the filing of this submission, please charge the fees to our **Deposit Account No. 18-1945.** If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit account.

Respectfully Submitted,

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